

5 structur

1. A media discharge device, comprising:
a support member;
a telescoping device supported by the support member via a joint
5 structure that allows the telescoping device to rotate with respect to the support member with at least one degree of freedom, the telescoping device comprising a first member and a second member that moves with respect to the first member in an extending direction and a retracting direction during operation of the media discharge device; and
10 a media discharge port provided on the telescoping device.
2. The media discharge device of claim 1, further comprising an actuator that drives the second member in the extending direction and in the retracting direction.
3. The media discharge device of claim 2, wherein the actuator is selected
15 from the group consisting of a hydraulic actuator, a gear-driven actuator and a threaded actuator.
4. The media discharge device of claim 2, further comprising a standoff sensor that maintains a predetermined distance between the media discharge port and an object.
- 20 5. The media discharge device of claim 4, wherein the standoff sensor comprises:
a sensor that detects a distance to an object to which media is discharged; and
a controller that controls the actuator to drive the second member based
25 on the detected distance and thereby maintain the predetermined distance between the media discharge port and the object.
6. The media discharge device of claim 5, further comprising an input device connected to the controller, the input device inputting a desired value corresponding to the predetermined distance.
- 30 7. The media discharge device of claim 6, wherein the input device is a user input device.
8. The media discharge device of claim 4, wherein the standoff sensor comprises:
a mechanical feeler that contacts the object; and

a switch, operatively connected to the mechanical feeler, that controls the actuator to drive the second member based on whether the mechanical feeler is in contact with the object and thereby maintain the predetermined distance between the media discharge port and the object.

5 9. The media discharge device of claim 2, wherein the actuator includes a manual switch.

10 10. The media discharge device of claim 1, further comprising a counter weight provided on the telescoping device.

10 11. The media discharge device of claim 1, wherein the joint structure allows the telescoping device to rotate relative to the support member with two degrees of freedom.

15 12. The media discharge device of claim 1, wherein the joint structure is freely manually manipulatable.

15 13. The media discharge device of claim 1, wherein the second member has one degree of freedom with respect to the first member.

14. A media discharge system, comprising:
the media discharge device of claim 1; and
a media reservoir connected to the discharge port by a media passage.

20 15. A media discharge system, comprising:
the media discharge device of claim 1; and
a semi-stationary object that holds the media discharge device.

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